

Serial No. 09/835,837
Reply to Office Action of June 23, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1(Currently Amended). A data storage system comprising:
a communication network;
a client application coupled to the network and generating an access request for stored data, wherein the client application lacks a priori knowledge of the location of the requested data;
an intermediary server coupled to the network to receive the request;
one or more data storage devices configured as a storage area network accessible through the intermediary server and having a plurality of data units, including the stored data that is requested by the client application, stored at selected locations therein, the one or more data storage devices providing scalable data service functionality;
a storage server having knowledge of the location of the data units in the storage devices and having an interface for communicating with the intermediary server;
processes within the intermediary server responsive to a received data access request for communicating with the storage server to obtain knowledge about the location of requested data; and
processes within the intermediary server for obtaining the data from the specific location and serving the data to the requesting client application.

2(Original). The system of claim 1 wherein the data is returned such that the client remains unaware of the specific location of the data.

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3(Original). The system of claim 1 wherein the intermediary server has a lower latency connection to the client application than does the storage server.

4(Original). The system of claim 1 wherein at least some of the storage devices comprise direct attached storage for the intermediary server.

5(Original). The system of claim 1 wherein at least some of the storage devices comprise network attached storage.

6(Canceled).

7(Original). The system of claim 1 wherein the access request is represented by a token.

8(Previously Presented). The system of claim 1 wherein the processes for communicating with the storage server further comprise transmission of a token representing the requested data.

9(Previously Presented). The system of claim 1 wherein the processes for communicating with the storage server further comprise processes for receiving a resource locator from the storage server.

10(Original). The system of claim 1 wherein the processes for communicating with the storage server further comprise processes for receiving a file name and file path from the intermediary server.

11(Currently Amended). A method for managing on-network data storage comprising the acts of:

providing a communication network;

receiving requests for data within an intermediary server from a plurality of external client applications coupled to the network;

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storing units of data in one or more data storage devices configured as a storage area network accessible to the intermediary server, the one or more data storage devices providing scalable data service functionality;

associating each request with a token representing the request;

sending the token to a storage server coupled to the network and having an interface for communicating with the intermediary server;

causing the storage server to return specific location information corresponding to the request associated with the received token;

causing the intermediary server to access the data storage mechanism using the specific location information to retrieve data at the specific location; and

delivering the retrieved data to the client application that generated the request.

12(Currently Amended). A method for transferring data between network-connected computers comprising the acts of:

storing a data object at a specific location in a network-connected storage ~~mechanism~~ area network;

transmitting a token representing the data object from a first network-connected computer to an intermediary computer;

in the intermediary computer, using the token to identify the specific storage location of the data object;

causing the storage area network ~~mechanism~~ to transfer the data object to a second network-connected computer, providing scalable data service functionality.

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13(Original). The method of claim 12 wherein the step of sending the token further comprises sending an identification of the second network-connected computer.

14(Original). The method of claim 12 wherein the act of transferring the data object comprises transferring the data object to a plurality of network-connected computers.

15(Currently Amended). The method of claim 12 further comprising:
storing copies of the data object at multiple network-connected storage area networks ~~mechanisms~~;
using the intermediary computer to select one of the multiple network-connected storage area networks ~~mechanisms~~; and
causing the selected network-connected storage area networks ~~mechanism~~ to transfer the data object to a second network-connected computer.

16(Original). The method of claim 12 wherein the step of causing the storage mechanism to transfer the data object to a second network-connected computer comprises:

transferring the data object to a front-end server topologically close to the second network-connected computer; and

transferring the data object from the front-end server to the second network-connected computer.

17(Currently Amended). The method of claim 12 wherein the data object at the specific location is referred to as a primary data object, the method further comprising:

causing the network-connected storage area networks ~~mechanism~~ to proactively redistribute data objects by transferring in addition to the primary data

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object, one or more data objects that are sequentially related to the primary data object.

18(Currently Amended). A data distribution service comprising:

one or more data storage mechanisms holding a plurality of data objects at specific non-public locations, wherein the one or more storage mechanisms includes a storage area network;

an interface for receiving tokens, the tokens associated with particular ones of the data objects and the tokens lacking specific location information indicating the locations of the data objects in the one or more data storage mechanisms; and

~~in exchange for payment, a means for~~ supplying the specific non-public locations of the data objects associated with the received tokens.

19(Currently Amended). A method for version control of a data object comprising:

receiving a token representing a first version of a data object;

using the token to identify a second version of the data object; and

identifying a specific storage location in a storage area network of the second version data object in response to the received token.